CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

ORDER NO. 99-042

WASTE DISCHARGE REQUIREMENTS FOR:

BENZIGER FAMILY WINERY, BENZIGER PROPERTIES LLC, GLEN ELLEN, SONOMA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

- 1. Benziger Family Winery (Benziger Properties, LLC), hereinafter referred to as the discharger, owns and operates a winery located at 1883 London Ranch Road in Glen Ellen, Sonoma County. The discharger submitted the original Application and Report of Waste Discharge on February 23, 1998, for on-site treatment and disposal of domestic and winery wastewater. The Board received an amendment to the application on May 4, 1998. The application was deemed complete on August 23, 1998. The discharger sent additional amendments to the application on September 2, 1998, October 15, 1998, and May 4, 1999.
- 2. Existing process and sanitary wastewater facilities treat both process and sanitary waste. Screened winery process wastewater is currently disposed of through a septic tank and off-site leachfield system. Sanitary waste is collected separately from winery wastewater and conveyed to an existing standard septic tank and mound type disposal system.
- 3. The discharger proposes to expand its production level from 12,000 cases per year to 80,000 cases per year and to treat winery process wastewater in two newly-constructed on-site facultative aerated lagoons. Additional treatment of the process winery wastewater will be provided by a constructed wetland located between the two aerated lagoons. The discharger will crush approximately 1200 tons of grapes in order to produce about 192,000 gallons of wine per year. The aerated lagoon/wetland system will treat approximately 1.54 million gallons per year of process wastewater. The treated process wastewater will be reused to drip irrigate up to 50 acres of vineyard.
- 4. Sanitary waste will continue to be collected separately from winery wastewater. The County of Sonoma permits the existing standard septic tank and mound type disposal system, which has adequate capacity for anticipated future sewage wastewater produced by no more than 20 special events per year. The domestic water system is operated under permit No. 4901204 issued by the California Department of Health services (DHS), Office of Drinking Water in Santa Rosa, California.
- 5. Upon expansion of the winery processing facility, waste generated by the discharger will consist of the following three components:

- (a) Sanitary wastewater is generated by 30 full-time winery employees and 200 visitors on an average day and 10 full-time employees and 500 visitors on a peak weekend day. Total average flows are 1250 gallons per day (gpd), while peak flows are 1450 gpd. The existing septic tank, which has a capacity of 3000 gallons, is sufficient for these peak sewage system flows which require a tank size of 2250 gallons. The current leachfield mound system is permitted for 1,450 gpd by the County of Sonoma Permit and Resource Management Department, but is capable of handling 3000 gpd.
- (b) Process wastewater is generated from the winery production operations including crushing, bottling, and cleanup of equipment, tanks and floors. The projected average daily flow is 4,210 gpd (based on annual volume), projected average daily flows during crushing season is 8,310 gpd, and projected maximum daily flow during this season is 15,600 gpd. Winery wastewater will be screened and neutralized, if necessary, prior to biological treatment in two aerated lagoons of 1.2 million gallons total capacity and one constructed wetlands cell. An additional wetland cell may be constructed at a future time. The treated wastewater will be reclaimed for vineyard irrigation. The location of the irrigation site is shown in Attachment A.
- (c) <u>Solid wastes</u> from the process facility consist of pomace, seeds and stems. An estimated 804,000 pounds or 784 cubic yards are anticipated annually. These solids will be spread and disked into the soil of the 50-acre vineyard as a soil conditioner and supplemental nutrient source. Periodic (every 5-10 years) removal of sludge from the facultative aerated lagoons will also create solid wastes. These solids will either be dried, spread and disked into vineyard soil or transported to a permitted solid waste disposal site.
- 6. The discharger's facility currently operates under a use permit issued by the County of Sonoma, Permit and Resource Management Department. A Mitigated Negative Declaration was prepared by the County in May of 1998 for (1) an increase in annual production from 12,000 to 80,000 cases per year, (2) construction of a new process wastewater system, (3) construction of an approximately 15,000 square foot barrel storage building, and (4) having up to 20 special events per year (at a 100 attendee limit per event). Previous to using the new aerated lagoons and wetland cell, the discharger disposed of process wastewater through an off-site leachfield system under permit with the County of Sonoma Permit and Resource Management Department. Because of the proposed production expansion, the facility no longer may operate solely under County regulation.
- 7. The process wastewater system consists of gravity piping, a rotary screen, two aerated treatment lagoons with a constructed wetland cell in between and related discharge pumping and piping. Initial screening is provided by screened baskets and strainers installed on the trench drains and floor drains within the winery. An existing sump will serve as the location for the chemical mixing if neutralization is required. The chemical used for neutralization will be anhydrous ammonia. This pretreatment system (if

necessary) would consist of a pH sensor, a controller and recorder, control piping manifold, sparger and chemical storage. The pH of the wastewater would be adjusted to above 6.5 by means of automatic pH control system, including a probe to provide monitoring. Two self-priming centrifugal pumps will convey the process wastewater to a rotary screen for removal of large residual grape solids, or pomace, which will then be disced into the vineyard.

- 8. The two aerated lagoons will be operated in series with a constructed wetland cell in between. The process wastewater will flow from the first lagoon to the wetland cell, then to the second lagoon. The volumes of the first and second aerated lagoons (not including 2 feet of freeboard) are 716,000 and 491,000 gallons, respectively. The total volume is 1.21 million gallons. The aerated lagoons are designed to treat peak flows of 10,000 gallons per day and a peak BOD₅ loading of 417.3 pounds per day at 5,000 mg/L BOD₅ concentration. The aerators for the two aerated lagoons (sized for 1.5 pounds of O₂ per pound of BOD₅) will have total horsepowers of 20 and 10, respectively. The detention time for each aerated lagoon will be 86 and 59 days, respectively, for a total of 145 days at average day harvest flow conditions (8310 mgd). The constructed wetland cell is designed to provide increased treatment reliability. It will consist of a clay liner (2-foot minimum thickness), PVC liner, and pea gravel, from which aquatic plants will be planted and provide treatment. Space has been provided for the future installation of a second wetland cell.
- 9. After treatment in the aerated lagoon/wetland system, the wastewater will be reclaimed for irrigation of vineyards on the site. Areas of the site utilized for this purpose are shown on Attachment A of the Order. A maximum of 50 acres will be used for reclamation. The annual total volume of water reused for irrigation is projected to be 2.48 million gallons per year, which includes precipitation captured by the ponds. This was based on yearly estimations of inflow and outflow to and from the aerated lagoons due to precipitation, evaporation and process wastewater. This projected reclaimed wastewater volume is less than the estimated assimilative capacity of the effluent reuse area.
- 10. Solid wastes from the wine-making process include pomace, seeds, stems, diatomaceous earth, and dead yeast cells. Approximately 804,000 pounds or 784 cubic yards of pomace and stems are generated annually. These solids are composted and used for soil enhancement on site during the dry weather period.
- 11. Graham Creek, a tributary to Sonoma Creek, is located approximately 110 feet to the north of the aerated lagoons.
- 12. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995 and November 13, 1995, respectively. A summary of the regulatory provisions is contained in Title 23 of the California Code of Regulations, Section 3912. The Basin

Plan identifies beneficial uses and water quality objectives for waters of the state in the Region, including surface waters and groundwaters. The Basin Plan also identifies effluent limitations and discharge prohibitions intended to protect beneficial uses. This Order implements the plans, policies and provisions of the Board's Basin Plan.

- 13. The beneficial uses identified in the Basin Plan for the upper Sonoma Valley ground water include:
 - a. Municipal and domestic supply
 - b. Industrial process supply
 - c. Industrial service supply
 - d. Agricultural supply
- 14. The beneficial uses of the Sonoma Creek as set forth in the Basin Plan include:
 - a. Navigation
 - b. Water Contact Recreation
 - c. Ocean Commercial and Sport Fishing
 - d. Warm Fresh Water Habitat
 - e. Preservation of Areas of Special Biological Significance
 - f. Wildlife Habitat
 - g. Marine Habitat
 - h. Fish Migration
- 15. The Sonoma County Permit and Resource Management Department determined that the proposed aerated treatment lagoons receiving winery wastewater flows will have no significant adverse impacts on the environment, provided that certain mitigation measures are implemented as part of the project. Impacts identified as needing mitigation included (1) site drainage patterns in a tributary of Graham Creek affected wastewater pond construction and (2) possible flooding hazards along Graham Creek from pond failure. The Mitigated Negative Declaration for the project, issued May 20, 1998, in accordance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), required a geotechnical analysis and an engineered site grading and drainage plan.
- 16. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
- 17. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Benziger Family Winery (Benziger Properties, LLC), pursuant to the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

- 1. Wastewater discharged to the aerated lagoon/wetland system shall not exceed 1.54 million gallons per year or 10,000 gallons per day, as a monthly average, during the peak crushing season from August through November.
- 2. The collection, treatment, storage and disposal of wastewater shall not create a pollution or nuisance as defined in Sections 13050 (l) and (m), respectively, of the California Water Code.
- 3. There shall be no bypass or overflow of wastewater to waters of the State from the discharger's wastewater collection, treatment, storage or disposal facilities.
- 4. The storage, treatment and disposal of wastewater shall not degrade the quality of any groundwater used for domestic purposes or cause an increase in any quality parameter that would make groundwater unsuitable for irrigation use.
- 5. The discharge of toxic substances into the discharger's aerated lagoons or wetland which will disturb the biological mechanisms is prohibited.
- 6. Neither the Sanitary wastewater, Process wastewater, or Solid wastes described in Finding 3 above shall be allowed to escape from the discharger's property into waters of the State via surface flow, surfacing after percolation, or airborne spray.
- 7. The discharge of domestic wastewater into the aerated lagoons or wetland is prohibited.
- 8. No wastewater or process solids shall be applied to any irrigation areas when soils are saturated, when conditions are such that runoff or ponding is likely to occur, during rainfall, or when rainfall is expected to occur within 24 hours.
- 9. The discharge of effluent from the aerated lagoons or wetland other than to the designated irrigation site is prohibited.

B. DISCHARGE SPECIFICATIONS

1. Water in the aerated lagoons or wetland, within one foot of the water surface, shall meet the following quality limits at all times, in any grab sample:

a. Dissolved Oxygen

2.0 mg/L, minimum

b. Dissolved Sulfide

0.1 mg/L, maximum

c. pH

6.0, minimum; and 9.0, maximum

- 2. To prevent the threat of overflow, a minimum freeboard of two (2) feet shall be maintained in the aerated lagoons at all times. Freeboard is the vertical distance between the water surface and the lowest elevation of the top of the containment structure (lagoon perimeter levee or outlet structure).
- 3. The lagoons shall be managed to minimize stagnant water areas which could provide breeding conditions of mosquitoes or other vectors of public health significance.
- 4. The public shall be effectively excluded from the aerated lagoon area.
- 5. Conspicuous warning signs shall be posted at adequate intervals around the aerated lagoons informing the public that the water contained therein is wastewater which is not safe for drinking or contact. Signs shall be of sufficient size and proper wording to be clearly read.
- 6. The wastewater aerated lagoon s shall be adequately protected from erosion, washout, and flooding from a rainfall event having a predicted frequency of one in 100 years.
- 7. All equipment, including pumps, piping, valves, storage ponds, etc. which may at any time contain wastewater, and are publicly accessible, shall be adequately and clearly identified with warning signs to inform the public that the liquid contained therein is wastewater which is not safe for drinking or contact.
- 8. All wastewater streams shall be measured in order to monitor the total flow rate of wastewater.

C. RECLAIMED WASTEWATER USE SPECIFICATIONS

- 1. Wastewater irrigation shall be limited to the area specified in Attachment A. A revised map must be submitted, and written authorization from the Executive Officer must be obtained, before any future change is made in the area used for irrigation.
- 2. Wastewater irrigation ponding which could provide a breeding area for mosquitoes shall be prevented.
- 3. Process wastewater shall not be applied to the irrigation site when the soil is saturated or during periods of rain.

D. <u>PROVISIONS</u>

1. The discharger shall comply with all sections of this Order immediately upon adoption.

- 2. The discharger shall comply with the Self-Monitoring Program for this Order, as adopted by the Board and as may be amended by the Executive Officer.
- 3. The discharger shall maintain in good working order and operate, as efficiently as possible, any facility or control system installed or as modified to achieve compliance with this Order.
- 4. In the event the discharger is unable to comply with any of the conditions of this Order due to:
 - a. Breakdown of wastewater transport or treatment equipment;
 - b. Accidents caused by human error or negligence; or
 - c. Other causes such as acts of nature;

the discharger shall notify the Board by telephone as soon as the discharge or the discharger's agents have knowledge of the incident. Written confirmation of this notification shall be submitted within two week of the telephone notification. The written notification shall include pertinent information explaining reasons for the non-compliance and shall indicated what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

- 5. The aerated lagoons shall be operated so as to achieve maximum freeboard between September 15 and October 1 of each year, in order to accommodate wastewater flows during the crush period.
- 6. The discharger shall notify the Board, in writing, at least 180 days before making any material change or proposed change in the character, location or volume of the discharge, or the characteristics of the wastewater collection, treatment or disposal facilities or practices regulated by this Order, except for during emergency conditions in which case the Board shall be notified as soon as possible thereafter.
- 7. The discharger shall permit the Board staff or its authorized representative in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
 - b. Access to and copy of, at reasonable times, any records that must be kept under the conditions of this Order;

- c. Inspection, at reasonable times, of any facility (including monitoring and control equipment), practices, or operations regulated or required under this Order; or
- d. To photograph, sample or monitor, at reasonable times, for the purpose of assuring compliance with this Order.
- 8. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the waste discharge requirements.
- 9. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this Board.
- 10. The Board will review this Order periodically and may revise the requirements.

I, Loretta Barsamian, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on June 16, 1999.

Loretta Barsamian
Executive Officer

Attachments:

- A. Map
- B. Wastewater Flow Diagram
- C. Self-Monitoring Program, including Standard Provisions



NOTES:
1. Sanitary wastewater is collected separately and conveyed to standard septic tank/leachfield systems.

2. The Wetlands Treatment System is supplemental only. The Faculative Aerated Lagoon System is designed to treat the entire PW flow.

97119SC1

LANDSCAPE

IRRIGATION

(optional)

VINEYARD IRRIGATION

50 ACRES

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

BENZIGER FAMILY WINERY (BENZIGER PROPERTIES, LLC) SONOMA COUNTY, CALIFORNIA

FOR WASTE DISCHARGE REQUIREMENTS

ORDER NO. 99-042

CONSISTS OF

PART A

[Standard Provisions]

and

PART B

[Site Specific Provisions]

SELF-MONITORING PROGRAM PART A for

BENZIGER FAMILY WINERY

I. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principle purposes of a monitoring program by a waste discharger, also referred to as a self-monitoring program, are:

- 1. To document compliance with waste discharge requirements and prohibitions established by this Regional Board; and
- 2. To facilitate self-policing by the discharger in the prevention and abatement of pollution arising from waste discharge.

II. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to Code of Federal Regulations Title 40, Section 136 (40 CFR S136), or other methods approved and specified by the Executive Officer of this Regional Board.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health Services (DHS), or a laboratory waived by the Executive Officer from obtaining a DHS certification for these analyses.

The director of the laboratory whose name appears on the certification, or his/her laboratory supervisor who is directly responsible for the analytical work performed shall supervise all analytical work including appropriate quality assurance / quality control procedures in his / her laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

III. DEFINITION OF TERMS

A. A grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples represent only conditions existent at the time of sampling.

B. A <u>flow sample</u> is the accurate measurement of a flow volume over a given period of time using a properly calibrated and maintained flow meter. Other means of providing a reasonable accurate quantification of flows may be acceptable, such as calculation from pump usage records for a pump of known capacity, or determination from batch discharges of known volumes.

C. Standard Observations - Aerated Lagoon and Wetland Cell Observations:

- (a) <u>Freeboard</u>: The vertical distance between the water surface and the lowest elevation of the top of the water containment structure (lagoon perimeter levee or outlet).
- (b) Evidence of <u>seepage</u> from the lagoon or wetland cell (Show affected areas on sketch, and include estimated volume of flow rate).
- (c) <u>Nuisance odors from the lagoons or wetland cell</u>: If present, indicate type of odor, cause of odor, and area affected by the odors.
- (d) Evidence of <u>mosquitoes breeding</u> within the lagoon or wetland cell area due to stagnant water areas.
- (e) <u>Warning signs properly posted</u> to inform public that the lagoons contain wastewater which is not safe for drinking or contact.

IV. STANDARD OBSERVATIONS

A. Lagoon and Wetland Cell Area

- a. For each lagoon, determine height of the freeboard at the lowest point of the lagoon perimeter levees.
- b. Evidence of seepage from the lagoons or wetland cell (Show affected area on a sketch, and estimate volume or flow rate).
- c. Odor from lagoons or wetland cell: If present, indicate apparent source, characterization, direction of travel, and any public use areas or offsite facilities affected by the odors.
- d. Estimated number of waterfowl and other water-associated birds in the lagoon and wetland cell area.
- e. Warning signs properly posted to inform public that lagoon contains wastewater that is not safe for drinking or contact.

B. <u>Vineyard Drip Irrigation Site</u>

- a. Evidence of runoff of reclaimed water from the site (Show affected area on a sketch, and estimate volume).
- b. Odor from Irrigation site: If present, indicate apparent source, characterization, direction of travel, and any public use areas or offsite facilities affected by the odors¹.
- c. Evidence of ponding of reclaimed water, and/or evidence of mosquitoes breeding within the irrigation area due to ponded water.
- d. Warning signs properly posted to inform public that irrigation water is reclaimed water, which is not safe for drinking, or contact.
- e. Evidence of leaks or breaks in the drip irrigation system pipelines or tubing.
- f. Evidence of plugged, broken or otherwise faulty drip irrigation system emitters.

¹ * Note: Odors are not considered violations when confined within the dischargers' property, <u>and</u> the potential for transmission of odors to public use areas or offsite facilities is minimal.

SELF-MONITORING PROGRAM PART B

for

BENZIGER FAMILY WINERY

I. DESCRIPTION OF SAMPLING AND OBSERVATION STATIONS

Note: A map of the facility showing locations of all sampling and observation stations described below shall accompany the first monitoring report submitted under this Self-Monitoring Program, and subsequent reports when stations are changed or a violation is reported. This map shall also accompany each Annual report.

A. AERATED LAGOON INFLUENT AND EFFLUENT

| <u>Station</u> | Description |
|----------------|---|
| P-IN | At a point in the wastewater system prior to discharging into the lagoons, such that the total wastewater flow into the lagoons can be determined. |
| P-EFF | At a point in the wastewater system between the lagoons and the irrigation system, such that the total wastewater flow used for irrigation can be determined. |

B. AERATED LAGOON WATER

| Station | Description |
|-----------|--|
| P-1 & P-2 | Located in Lagoons 1 and 2, respectively, at a point about one foot below the water surface and no less than two feet from the bank, representative of the wastewater. |

C. AERATED LAGOON OBSERVATION STATIONS

Station Description

L-1 & L-2 Along the perimeter levees of each lagoon.

D. WETLAND CELL WATER

Station Description

WC-1 & WC-2 (if used) Located at the point of discharge from the wetland cell to the lower lagoon or the next wetland cell (if operational).

E. IRRIGATION AND SEWAGE DISPOSAL OBSERVATIONS

<u>Irrigation System and Fields</u>: The irrigation system and fields shall be checked daily during irrigation for evidence of runoff and/or ponding of water.

<u>Sewage Disposal System</u>: The leachfield shall be checked weekly for evidence of wastewater surfacing.

II. SCHEDULE OF SAMPLING, ANALYSES AND OBSERVATIONS

- A. The discharger is required to perform observation, sampling, measurements and analyses according to the schedule given in Table 1 and Table 1 Footnotes.
- B. The discharger shall conduct a complete inspection of all drip irrigation lines and emitters at least once each year, during the vineyard's dormant season. A report of the findings of this inspection, including a description of any repairs or modifications made to the drip irrigation system, shall be submitted to the Board by April 15th.

III. REPORTS TO BE FILED WITH THE REGIONAL BOARD

A. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar <u>quarter</u> (ending March, June, September and December). Reports shall be submitted to this Regional Board's office no later than the fifteenth day of the month following the end of each quarter. The reports shall consist of the following:

1. Letter of Transmittal

A letter transmitting the self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory.

The transmittal letter shall contain a statement by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.

2. Results of Analyses and Observations

a. Tabulations of the results from all required analyses specified in <u>Table 1</u> by date, time, type of sample, and sample station.

b. Completed Lagoon Observation and Reclaimed Water Use Report forms (Attached) or reports with equivalent information.

B. Report of Permit Violation

In the event the discharger violates, or threatens to violate the conditions of the waste discharge requirements and prohibitions due to:

- a. Maintenance work, power failure, or breakdown of wastewater transport or treatment equipment;
- b. Accidents caused by human error or negligence; or
- c. Other causes such as acts of nature,

the discharger shall notify the Regional Board office by telephone as soon as the discharger or the discharger's agents have knowledge of the incident. Written confirmation of this notification shall be submitted within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

- I, Loretta K. Barsamian, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:
- 1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 99-042.
- 2. Is effective on the date shown below.
- 3. May be revised at any time after the effective date by the Executive Officer.

Louto K. Barramean LORETTA K. BARSAMIAN

Executive Officer

Effective Date Qune 16, 1999

Attachments

Attachment A: Table 1. Lagoon Observation and Reclaimed Water Use Report Form (Schedule of Sampling, Measurement and Analysis)

Attachment B: Aerated Lagoon Process Wastewater Report

Table 1. Schedule for Sampling, Measurements and Analyses

| A CONTRACTOR OF THE PROPERTY O | Sampling Stations | Units Lagoon Influen | | Lagoon Effluent | P-1 and P-2, WC-1 (and WC-2) | L-1 and L-2 | Irrigation Areas | |
|--|------------------------------|---|-----------------------------------|--------------------|---|--------------------|--|--|
| | Type of Sample | flow sample | grab | grab | grab | observations | observations | |
| | Total Monthly Flow Volume | gallons | monthly (flow meter) | monthly* | | | | |
| 7.1.1.1.1 | Average Monthly Flow rate | gallons per day | monthly (flow meter) | monthly* | | | | |
| Ì | pН | units | | | monthly | | | |
| | Dissolved Oxygen | mg/L | | | monthly | | | |
| | Dissolved Sulfides | mg/L | monthly when D.O. is below 2 mg/l | | monthly when D.O. is below 2 mg/l | | | |
| 200 | Freeboard | *************************************** | | | | Every Two Weeks | | |
| | Standard Observations | | | | | Every Two Weeks | Every Two Weeks during irrigation operations | |

^{*} P-2 supplemented with water from domestic water supply during peak vineyard irrigation periods.

AFRATED LAGOON PROCESS WASTEWATER REPORT

| Month/Year Influent Wastewater Flow Total Monthly Flow (gallons) Average Daily Flow Rate (gallons/day) Effluent Wastewater Flow Total Monthly Flow (gallons) Average Daily Flow (gallons) Average Daily Flow Rate (gallons/day) LAGOON/WETLAND WATER Sampling Date Lagoon/Wetland pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | FLOW | AUNAT | EDLAGE | JOHIK | JCL55 V | VASIL W | ATER IO | <u>DI OICI</u> | |
|---|--|-------------|-------------|-------------|-------------|------------|--------------|----------------|-------|
| Total Monthly Flow (gallons) Average Daily Flow Rate (gallons/day) Effluent Wastewater Flow Total Monthly Flow (gallons) Average Daily Flow Rate (gallons/day) LAGOON/WETLAND WATER Sampling Date Lagoon/Wetland pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | | | | · | | | | | |
| (gallons) Average Daily Flow Rate (gallons/day) Effluent Wastewater Flow Total Monthly Flow (gallons) Average Daily Flow Rate (gallons/day) LAGOON/WETLAND WATER Sampling Date Lagoon/Wetland pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | Influent Wastewater | Flow | • | | | | | | |
| Rate (gallons/day) Effluent Wastewater Flow Total Monthly Flow (gallons) Average Daily Flow Rate (gallons/day) LAGOON/WETLAND WATER Sampling Date Lagoon/Wetland pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | | | | | | | | | |
| Total Monthly Flow (gallons) Average Daily Flow Rate (gallons/day) LAGOON/WETLAND WATER Sampling Date Lagoon/Wetland pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquite Breeding? Warning Signs | | | | | | | | | |
| (gallons) Average Daily Flow Rate (gallons/day) LAGOON/WETLAND WATER Sampling Date Lagoon/Wetland pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | | Flow | | | | | | | |
| Rate (gallons/day) LAGOON/WETLAND WATER Sampling Date Lagoon/Wetland pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | | | | | | | | | |
| Sampling Date Lagoon/Wetland pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | | | | | | | | | |
| Lagoon/Wetland pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | LAGOON/WETLA | ND WATE | ER | | | | | | |
| pH Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | A TO SERVICE AND A SERVICE AND | | | | | | | | |
| Dissolved Oxygen (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | 17.00.00.00 | | | | | | | | |
| (mg/L) Dissolved Sulfide (mg/L) STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date | 20-20-20-20-20-20-20-20-20-20-20-20-20-2 | | | | | | | | |
| STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | (mg/L) | | | | | | | | |
| STANDARD OBSERVATIONS (1) (Twice/Month) Observation Date | | | | | | | | | |
| Freeboard (feet, inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | | RVATION | NS (1) (Tv | vice/Mor | nth) | | | | • |
| inches) Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | Observation Date | | | | | | | | |
| Seepage? Nuisance Odors? Mosquito Breeding? Warning Signs | | | | | | | | | |
| Nuisance Odors? Mosquito Breeding? Warning Signs | 133200 http://www.com/com/soussississississississississississississi | | | | | | | 1 | |
| Mosquito Breeding? Warning Signs | 0.00 | | | | | | | | |
| Breeding? Warning Signs | | | | | | | | | |
| | Breeding? | | | | | | | | |
| Properly Posted! | Warning Signs Properly Posted? | | | | | | | | |
| (1) For each inspection record either date, freeboard, or "yes" or "no". | | on record e | ither date, | freeboar | d, or "yes | s" or "no' | | | |
| If any observations indicate a violation, the following shall be included in the quarterly | If any observation | ns indicate | a violatio | n, the foll | lowing sh | all be inc | cluded in t | he quarte | rly |
| monitoring report: | | | | | | | | | |
| a. Show location of violation on a sketch of the site. | | | | | of the site | ÷. | | | |
| b. Explain cause and extent of violation. | | | | | | | | | |
| c. Describe corrective actions taken, and date(s) when compliance was achieved and regular lagoon/wetland use was resumed. | | | | | | ich comp | mance wa | s acmeved | i and |
| I certify that the information in this report, to the best of my knowledge, is true and correct. | I certify that the info | rmation in | this report | t, to the b | est of my | knowled | lge, is true | and corre | ect. |

Signature

Date